DOCUMENT RESUME

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ABSTRACT

This list of teaching resources is for use with other materials designed for a four-year electrical apprentice training program. Provided is a list of classroom demonstrations and manufacturers who give them and a list of training aids including the topic, title, indication whether filmstrips or movies (black and white or color), the price and the source. Addresses are given for each source. (Related instructor's manuals and worksheets are available--see note.) (JH)

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ED160875

SUPPLEMENTARY MATERIALS

FOR

ELECTRICAL APPRENTICE TECHNICAL TRAINING

FIRST, SECOND, THIRD, AND FOURTH YEAR MANUALS

Material Demonstrations

and

Training Film List

September, 1972
Revised to meet 1975 Electrical Code

PROGRAM DEVELOPMENT
DEPARTMENT OF COMMUNITY COLLEGES
RALEIGH, NORTH CAROLINA

CE 018 350

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND THE ERIC SYSTEM CONTRACTORS."

DEMONSTRATIONS

The manufacturers listed on the following pages have either a display, demonstration, or published literature which they can provide for your students. This material is generally free, but the company does expect to be able to mention their product and show why their product should be used.

You should contact the local representative of the company well in advance of when you would like him to appear to meet with your class. Arrangements can easily be made through a local electrical distributor which sells the manufacturer's product. Both the distributor and the manufacturer are always anxious to help you and your class. Your students today are their customers tomorrow.

Instructors who know of other sources of demonstrations, etc., which they have found useful are urged to pass this information on to the yearly Workshop Revision Committee so they may keep the list up to date and include more training aids.

DEMONSTRATIONS	MANUFACTURERS
Transformers -- Regular and High Voltage	Westinghouse General Electric Square D Hevi-Duty
Motors and Controllers Motor Control Centers	Westinghouse General Electric Square D Allen Bradley Crouse-Hinds
Panels, Switches, Switchgears, Bus Ducts	Westinghouse General Electric Square D Cutler-Hammer
Explosion Proof Equipment	Crouse-Hinds Appleton Killark
Underfloor Duct and Cellular Raceways	Walker/Parksburg Square D Granco Flexicore
Wire and Cables	Anaconda General Electric Okonite Simplex
Switches and Receptacles	Sierria Arrow Hart Hubbell Pass and Seymour General Electric

DEMONSTRATIONS	MANUFACTURERS
Outlet Boxes	Raco Steel City Union
Conduit-Steel and Aluminum, Plastic and Fiber	Steel Raceway Institute Aluminum Raceway Institute Plastic Raceway Institute
Signal Systems	Edwards Standard Simplex

AUDIO-VISUAL TRAINING AIDS

The attached list of filmstrips and 16mm movies for the related topics has been prepared for your review and use.

The instructor may find that these items are already a part of the institution's audio-visual library and should start his search there. Some aids are available as outright purchases; others are on a rental fee basis and some are on a loan basis. The Air Force films are free for return postage. (Use the special film rate the post office allows for educational films.)

The instructor should preview any training aid to be sure it fits the topic he plans to teach and covers the material in the lesson. There is good material in each of the aids listed. Their worth as an aid in your classroom is dependent on how well you can incorporate the material into your lesson plan and how effectively it is presented to the student.

If you have additional training aids of any type which other instructors could effectively use, please let the Department of Community Colleges know so they may be included in future listings.

AUDIO-VISUAL TRAINING AIDS

The following films are available from:

U.S.A.F. Central Audio-Visual Library
AF Audio-Visual Center
Norton A.F.B., California 92409

NOTE: All Air Force film requests should state that they are for professionally interested groups only and for training electrical apprentices.

TF 6181	Wire Size and Voltage Drop
TF 1-5163	Squirrel-Cage Rotor Principles
TF 1-5164	Split-Phase Motor Principles
TF 1-4375	Electricity and Magnetism - Part III - Voltaic Cell, Dry Cell and Storage Battery
TF 1-4378	Electricity and Magnetism - Part II - Ohm's Law
TF 1-4514	Radio Technician Training - RCL - (Resistance, Capacitance, Inductance)
TF 1-4521	Radio Technician Training - Elementary Electricity
TF 1-4653	Alternating Current - Part I
TF 1-4654	Alternating Current - Part II
TF 1-5202	Radio Technician Training - Elementary Electricity - Amperes, Volts, and Ohms
TF 1-5250a	Transistors - P-N Junction Fundamentals
TF 1-5250b	Transistors - Triode Fundamentals
TF 1-5250c	Transistors - Minority Carriers
TF 1-5250d	Transistors - Low Frequency Amplifiers
TF 1-5250e	Transistors - High Frequency Operation (Amplifiers and Oscillators)
TF 1-5250f	Transistors - Switching
TF 1-5250g	Transistors - Servicing Techniques
TF 1-5443a	Basic Electronics - Inductance in AC Circuits
TF 1-5443b	Basic Electronics - Capacitance in AC Circuits
TF 1-5443c	Basic Electronics - AC Series Circuits
TF 1-5443d	Basic Electronics - AC Parallel Circuits
TF 1-5465a	Fundamentals of Radio Troubleshooting - Principal Technique
TF 6080	Motor Control Systems
TF 6082	Motor Controllers

AUDIO-VISUAL TRAINING AIDS

TOPIC	TITLE	MEDIA FILMSTRIP	MOVIE	B/W	COLOR	PRICE	SOURCE
Electric Cell	Electric Cell, The	X			X	4.95	Jam Handy
Electric Cell	Electric Cells and the Faraday Laws		X		X	300.00	Encyclopaedia Brit
Electric Cell	Lead Storage Battery: The Dry Cell, The		X		X	300.00	Encyclopaedia Brit
Electric Cell	Story of the Modern Storage Battery, The		X		X	Loan	Serina Press
Electric Circuit, Parallel	Series and Parallel Circuits		X	X		70.00	Encyclopaedia Brit
Electric Circuit, Series	Series and Parallel Circuits		X	X		70.00	Encyclopaedia Brit
Electric Current	Electricity for Light and Heat	X			X	14.00	Curriculum Mat Corp
Electric Current	Static and Current Electricity	X			X	14.00	Curriculum Mat Corp
Electric Current	Alternating Current Theory-Lecture		X		X	300.00	Encyclopaedia Brit
Electric Current	Induced Electric Current - Lecture		X		X	300.00	Encyclopaedia Brit
Electric Current Measurement	Electric Current Measurement	X		X		6.00	McGraw-Hill
Electric Current Principle	Electric Current Principles	X		X		6.00	McGraw-Hill
Electric Generator	How Electricity is Produced	X			X	9.00	Soc for Visual Ed
Electric Heat	Electricity for Light and Heat	X			X	14.00	Curriculum Mat Corp
Electric Meter	Electric Meters	X			X	4.95	Jam Handy
Electric Motor	Electric Motors	X			X	14.00	Curriculum Mat Corp
Electric Motor	Electric Motors	X			X	4.95	Jam Handy
Electric Motor	Electric Motors - Lecture		X		X	300.00	Encyclopaedia Brit
Electric Motor	Study of Motors - Laboratory, A		X		X	300.00	Encyclopaedia Brit
Electric Motor	Electric Motors Part I, Magnetism and the DC Motor	X		X		.95	Vocat Agric Service

TOPIC	TITLE	MEDIA FILMSTRIP	MOVIE	B/W	COLOR	PRICE	SOURCE
Electric Motor	Electric Motors Part 2, Induction and the AC Motor	X		X		.95	Vocat Agric Service
Electric Motor	Electric Motors Part 3, Testing and Identifying Leads; Connecting and Reversing	X		X		1.00	Vocat Agric Service
Electric Motor	Electric Motors Part 4, Trouble Shooting	X		X		1.35	Vocat Agric Service
Electric Motor	Electric Motor - Parts 1 & 2	X		X		1.00	NASCO
Electric Motor, Generator	Principles of Electric Motors and Generators, The	X			X	6.00	Soc for Visual Ed
Electric Power	Wires to Our House		X		X	165.00	International Film
Electric Switch	Learning About Electric Current		X	X		52.50	Encyclopaedia Brit
Electrical Circuit	Electrical Circuits	X			X	6.00	Soc for Visual Ed
Electrical Circuit	Electric Circuits	X			X	6.00	Popular Science
Electrical Energy	Electrical Energy	X			X	6.00	McIntyre
Electrical Measurement	Measurement of Electricity		X	X	X	130.00	Coronet Films
Electrical Measurement	Measurement of Resistance	X			X	6.00	Popular Science
Electrical Resistance	Ohm's Law		X	X	X	65.00	Coronet Films
Electrical Safety	Electricity: Principles of Safety		X	X	X	130.00	Coronet Films
Electrical System Checking	Checking the Electrical System		X	X		30.50	US Natl A-V Ctr
Electrical Wiring	Diagraming for Electrical Wiring	X		X		1.48	NASCO
Electrical Wiring Conduit	Easy Does It		X		X	LOAN	Republic Steel
Electricity	What is Electricity	X			X	6.00	Benefic Press
Electricity	Series and Parallel Circuits		X	X	X	120.00	CENCO Educ Aids
Electric Power, Space	Electric Power Generation		X		X	LOAN	Serina Press

TOPIC	TITLE	MEDIA FILMSTRIP	MOVIE	B/W	COLOR	PRICE	SOURCE
Electricity	Sources of Electricity		X	X	X	120.00	CENCO Educ Aids
Electricity	Alternating Current	X			X	4.95	Jam Handy
Electricity	Applications (Part 1)	X			X	4.95	Jam Handy
Electricity	Applications (Part 2)	X			X	4.95	Jam Handy
Electricity	Basic Electricity (Ser 12)	X			X	52.60	Jam Handy
Electricity	Current Electricity	X			X	4.95	Jam Handy
Electricity	Electric Cell, The	X			X	4.95	Jam Handy
Electricity	Electric Meters	X			X	4.95	Jam Handy
Electricity	Electric Motors	X			X	4.95	Jam Handy
Electricity	Electromagnetism	X			X	4.95	Jam Handy
Electricity	Generator, The	X			X	4.95	Jam Handy
Electricity	Magnetism	X			X	4.95	Jam Handy
Electricity	Static Electricity	X			X	4.95	Jam Handy
Electricity	Storage Battery, The	X			X	4.95	Jam Handy
Electricity	Electrons		X	X		70.00	Encyclopaedia Brit
Electricity	Physics Course Unit VI Electricity and Magnetism		X		X	5400.00	Encyclopaedia Brit
Electricity	Primary Cell, The		X	X		70.00	Encyclopaedia Brit
Electricity	Amperes, Volts, and Ohms		X	X		14.25	US Natl A-V Ctr
Electricity	Basic Electricity		X		X	LOAN	Carrier Air Condit
Electricity	Basic Electricity		X		X	65.00	US Natl A-V Ctr
Electricity	Basic Electricity: AC Parallel Circuits		X	X		7.75	US Natl A-V Ctr
Electricity	Basic Electricity: AC Series Circuits		X	X		7.75	US Natl A-V Ctr
Electricity	Basic Electricity: Capacitance in AC Circuits		X	X		9.25	US Natl A-V Ctr
Electricity	Basic Electricity: Inductance in AC Circuits		X	X		12.50	US Natl A-V Ctr
Electricity	Electricity and Magnetism - Part 1 - Elements of Electricity		X	X		LOAN	Serina Press
Electricity	Electricity: The Generator and the Motor		X		X	- -	Universal Ed Vis Art

TOPIC	TITLE	MEDIA FILMSTRIP	MOVIE	B/W	COLOR	PRICE	SOURCE
Electricity	Elements of Electricity		X	X		27.00	US Natl A-V Ctr
Electricity	Principles of Electricity		X		X	195.00	General Electric
Electricity, Current	Pressure and Current		X		X	150.00	Sterling Educ Films
Electricity Generation	Six Sources of Electricity		X	X		130.00	Prism Productions
Electricity, Insulator	Learning About Electric Current		X	X		52.50	Encyclopaedia Brit
Electricity, Magnetism	Magnetism		X		X	150.00	Sterling Educ Films
Electricity, Magnetism	How Magnets Produce Electricity		X	X		7.75	US Natl A-V Ctr
Electricity, Measurement	Electricity: Measurement		X	X	X	100.00	Indiana U A-V Ctr
Electricity, Physics	Alternating Current Theory - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Capacitance - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Coulomb's Law - Electrostatics Lecture		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Coulomb's Law - Magnetism - Laboratory		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Effects of Electric Currents - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Electric Field and Potential - Lecture, The		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Electric Motors - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Electrical Equivalent of Heat - Laboratory		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Electricity at Rest - Lecture		X		X	300.00	Encyclopaedia Brit

TOPIC	TITLE	MEDIA FILMSTRIP	MOVIE	B/W	COLOR	PRICE	SOURCE
Electricity, Physics	Electricity in Motion - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Electromotive Force of a Battery Cell-Laboratory		X		X	300.00	Encyclopaedia Brit
Electricity, Physics	Induced Electric Current - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Magnetic Fields - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Magnetic Induction - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Magnetism - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Ohm's Law - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Parallel Circuits - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Parallel Resistances - Laboratory		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Potential Divider - Laboratory, The		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Series Circuits - Laboratory		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Study of Motors - Laboratory, A		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Transformers - Lecture		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Transformer - Laboratory		X		X	300.00	Encyclopaedia Brit
Electricity Physics	Wheatstone Bridge - Laboratory		X		X	300.00	Encyclopaedia Brit
Electricity, Source	Electrical Sources		X		X	150.00	Sterling Educ Films
Electricity, Static	Fundamentals of Electricity		X		X	150.00	Sterling Educ Films

TOPIC	TITLE	MEDIA FILMSTRIP	MOVIE	B/W	COLOR	PRICE	SOURCE
Electricity, Teaching	A. C. and D. C. Generators	X		X		3.00	Long Filmslide
Electricity, Teaching	A. C. Voltmeters and Ammeters	X		X		3.00	Long Filmslide
Electricity, Teaching	Condensers and Choke Coils	X		X		3.00	Long Filmslide
Electricity, Teaching	D.C. Voltmeters and Ammeters	X		X		3.00	Long Filmslide
Electricity, Teaching	Electricity	X		X		20.00	Long Filmslide
Electricity, Teaching	Electricity at Work	X		X		3.00	Long Filmslide
Electricity, Teaching	Motors	X		X		3.00	Long Filmslide
Electricity, Teaching	Resistance	X		X		3.00	Long Filmslide
Electricity, Teaching	Transformers	X		X		3.00	Long Filmslide
Electricity, Transistor	Electronics: The Transistor		X		X	- -	Universal Ed Vis Art
Electricity, Vacuum Tube	Electronics: Vacuum Tubes		X		X	- -	Universal Ed Vis Art
Electricity, Wiring	Electricity: Basic Wiring		X		X	- -	Universal Ed Vis Art
Electromagnetic Induction	Electromagnetic Induction - Michael Faraday	X			X	6.95	Jam Handy
Electromagnetic Induction	Electromagnetic Induction		X	X	X	162.50	Coronet Films
Electromagnetic Induction	Fundamentals of A-C and D-C Generation		X		X	195.00	General Electric
Electromagnetism	Electromagnets and How They Work	X			X	5.95	Jam Handy
Electromagnetism	Electromagnetism	X			X	4.95	Jam Handy

TOPIC	TITLE	MEDIA FILMSTRIP	MOVIE	B/W	COLOR	PRICE	SOURCE
Electromotive Force	Current and Electromotive Force		X	X		19.25	US Natl A-V Ctr
Electromotive Force	Electron, An Introduction, The		X	X		28.50	US Natl A-V Ctr
Electromotive Force	What Causes Current Flow EMF		X	X		6.25	US Natl A-V Ctr
Electron	Electrons at Work		X		X	167.50	Encyclopaedia Brit
Electron	Fundamentals of Electricity		X		X	150.00	Sterling Educ Films
Electron	Magnetism		X		X	150.00	Sterling Educ Films
Electron	Discovery of the Electron - Lecture		X		X	300.00	Encyclopaedia Brit
Electron	Electrons		X	X		70.00	Encyclopaedia Brit
Electron	Electricity and Magnetism - Part 1 - Elements of Electricity		X	X		LOAN	Serina Press
Electron	Electron, An Introduction, The		X	X		28.50	US Natl A-V Ctr
Electron, Circuit	Capacitance		X	X		53.50	US Natl A-V Ctr
Electron Flow Principles	Diode: Principles and Applications, The		X	X		30.50	US Natl A-V Ctr
Electron Theory	Current and Electromotive Force		X	X		19.25	US Natl A-V Ctr
Electron Theory	Electron Theory, The		X	X		9.25	US Natl A-V Ctr
Electron Theory, Diode Tube	Vacuum Tubes: Electron Theory and the Diode Tube		X	X		28.50	US Natl A-V Ctr

AUDIO-VISUAL AIDS ADDRESSES

Benefic Press
10300 W Roosevelt Rd.
Westchester, Ill. 60153

Carrier Air Conditioning Company
Carrier Parkway
Syracuse, N. Y. 13201

CENCO Educational Aids
2600 S. Kostner Avenue
Chicago, Ill. 60623

Coronet Films
65 E. South Water St.
Chicago, Ill. 60601

Curriculum Materials Corporation
1319 Vine Street
Philadelphia, Pa. 19107

Encyclopaedia Britannica Educ. Corp.
425 North Michigan Avenue
Chicago, Ill. 60611

General Electric Educational Films
60 Washington Ave.
Schenectady, N. Y. 12305

Indiana University Audio-Visual Center
Field Services Department
Bloomington, Ind. 47401

International Film Bureau, Inc.
332 South Michigan Avenue
Chicago, Ill. 60604

Jam Handy School Service, Inc.
2781 East Grand Blvd.
Detroit, Michigan 48211

Long Filmslide Service
7505 Fairmont Avenue
El Cerrito, Calif. 94530

McGraw-Hill Book Company
330 West 42nd Street
New York, N. Y. 10036

McIntyre Educational Materials, LTD
3333 Metropolitan Blvd. East
Montreal 455, P.Q., Canada

NASCO
Fort Atkinson
Wisconsin 53538

Popular Science Publishing Company, Inc.
Audio-Visual Division
355 Lexington Avenue
New York, N. Y. 10017

Prism Productions, Inc.
220 East 23rd Street
New York, N. Y. 10010

Republic Steel Corporation
1436 Republic Building
Cleveland, Ohio

Serina Press
70 Kennedy Street
Alexandria, Va. 22305

Society for Visual Education, Inc.
1345 Diversey Parkway
Chicago, Ill. 60614

Sterling Educational Films
241 East 34th Street
New York, N. Y. 10016

United States National Audio-Visual Center
National Archives and Records Service
Washington, D. C. 20409

Universal Educational and Visual Arts
221 Park Avenue South
New York, N. Y. 10003

Vocational Agricultural Service
University of Illinois
434 Mumford Hall
Urbana, Ill. 61801